



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

EPA Region 5 Records Ctr.



314034

REPLY TO THE ATTENTION OF:
SR-6J

VIA ELECTRONIC MAIL AND CERTIFIED MAIL

November 3, 2008

Weyerhaeuser Company
Attention: Jennifer Hale
7800 East Orchard Road, Suite 200
Greenwood Village, Colorado 80111

Re: Plainwell Mill, Operable Unit #7, Allied Paper/Portage Creek/Kalamazoo River Site
Comments on Drafts the *Phase 1 Work Plan - Initial Groundwater and Coal Tunnel
Assessment, Addendum 3 to the Quality Assurance Project Plan, and Multi-Area Field
Sampling Plan, Revision 4*

Dear Ms. Hale:

In October 2008, Weyerhaeuser Company (Weyerhaeuser) submitted a draft *Phase 1 Work Plan - Initial Groundwater and Coal Tunnel Assessment* (Work Plan) for the above referenced Site. After review of Weyerhaeuser response, EPA hereby disapproves Weyerhaeuser's draft Work Plan and provides the following comments. Accordingly, pursuant to paragraph 50 of the RI/FS Consent Decree, please submit your modified plans to EPA within 30 days of your receipt of this letter.

General Comments

Comment 1. Please specify, in every instance, that this is only a preliminary investigation of the shallow groundwater at the site. EPA maintains that while discovering contaminants during this preliminary investigation may aide in locating contaminant sources, the converse is untrue and additional groundwater and soil sampling will be needed regardless of the results of this investigation to fully delineate the nature and extent of contamination.

Comment 2. There is currently insufficient information available to define contaminants of potential concern (COPC). Please remove mention of COPCs in the text and analyze all samples for a wide range of constituents.

Comment 3. The premise for many of the assumptions made for the placement of groundwater wells involves horizontal groundwater gradients, which are unknown at this

time. Please alter the text such that the reader understands Weyerhaeuser has assumed a gradient.

Specific Comments

Comment 1. Page 1, Bullet 3 – Please reword this bullet as it is unclear.

Comment 2. Page 2, Bullet 1 under *Groundwater Investigation Activities* – Please reword it to read, “to perform an initial evaluation of shallow groundwater at the site based on current understanding of potential source areas.”

Comment 3. Page 3, First Paragraph – Please delete the paragraph.

Comment 4. Page 5, Table 2-1 – Please indicate that direct discharge is to the Kalamazoo River.

Comment 5. Page 9, First Paragraph – The sentence starting with “As discussed in Section 2...” is incorrect. Please replace it with, “The property has been divided into four areas based on historical use.”

Comment 6. Page 10, Section 3.1.4 – The statement is incorrect, the undeveloped areas have always been considered part of the study area. Please remove or revise the statement.

Comment 7. Page 11, Numbered List – It is unlikely that this investigation of shallow groundwater will yield sufficient data to determine the full interrelationship of the groundwater and river. Additionally it is unlikely that the data will provide sufficient information to determine if groundwater at the site poses an unacceptable risk. Please limit the focus of the study questions correspondingly.

Comment 8. Page 13, Last Paragraph – Please include, “how the material entered the coal tunnel” as a data gap, or include that information if available.

Comment 9. Page 18, Monitoring Well Construction – Please consider the following:

- a. EPA recommends stainless steel as the construction material for wells;
- b. EPA recommends 5 foot screens be used;
- c. EPA recommends a standard operating procedure (SOP) be included in the field sampling plan (FSP) for well construction;
- d. A sand pack usually extends 2 - 6 inches below the screened interval and 1-2 feet above the screened interval;
- e. Sand placed below the screen itself would aide in keeping sediment out of the well;
- f. The bottom of the bentonite seal should be at least one foot above the top of the screened interval, with a preference for two feet. If space requirements do not allow, consider reducing the thickness of the concrete layer;

- g. Hydration of the bentonite should occur prior to the addition of concrete, and the volume of water added for hydration should be recorded; and
- h. A diagram of well construction should be included in the text or an SOP for well construction.

Comment 10. Page 19, Well Development – Please consider the following:

- a. The description in the text and the SOP for well sampling in the FSP do not match. A consistent method should be identified prior to field activities;
- b. Well development should commence no sooner than 48 hours after well construction;
- c. In addition to turbidity, EPA recommends measuring pH, temperature, specific conductance, and ORP during development;
- d. Well development can cease when three times the volume of water injected into the well during drilling, construction, and development have been removed from the well and:
 - i. Field parameters (pH, temperature, etc.) have stabilized for three consecutive well volumes (readings may only start after removing three times the volume of water injected into the well have been removed from the well); or
 - ii. An additional 20 well volumes have been purged.
- e. If the well yields insufficient water to sustain pumping, it should be developed using a bailer and development should go on until three times the volume of water injected into the well during drilling, construction, and development have been removed from the well and an additional 15 well volumes have been removed;

Comment 11. Table 3-1 – Please include notes below the table to explain the meaning of the various notations contained in the table.

Comment 12. Figure 3-1 – The notes for this figure alludes to an appendix that does not exist. Please revise the text.

In addition to the Work Plan, Weyerhaeuser also submitted Drafts of *Addendum 3 to the Quality Assurance Project Plan (QAPP)*, and *Multi-Area Field Sampling Plan, Revision 4 (FSP)*, for which EPA is providing conditional approval. Final approval of these documents is pending their revision to include the following comments:

Addendum 3 to the Quality Assurance Project Plan

Comment 1. Please include an index of each participating laboratory and their procedures;

Comment 2. As this QAPP is in use at multiple operable units, please ensure the cover reflects this; please also ensure all EPA and Michigan Department of Environmental Quality (MDEQ) contacts receive a finalized copy any new revisions.

Multi-Area Field Sampling Plan, Revision 4

Comment 1. In Attachment A, please provide a list of the applicable operable units, and the standard operating procedures (SOP) which will be used at each operable unit.

Comment 2. SOP F-11 "Groundwater Sampling and Field Measurement Procedures." This SOP includes monitoring well inspection and groundwater measurements (temperature, turbidity, specific conductance, pH, dissolved oxygen). All SOPs for these parameters should be included in Attachment A of the Field Sampling Plan instead of reference to the manufacturer's instructions.

Comment 3. As this FSP is in use at multiple operable units, please ensure the cover reflects this; please also ensure all EPA and MDEQ contacts receive a finalized copy any new revisions.

Thank you for your attention to this matter. Please do not hesitate to call me at 312.886.1434, should you have any questions related to the project.

Sincerely,



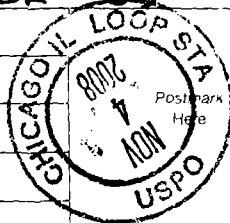
**Sam Chummar
Remedial Project Manager
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cc: Leslie Kirby-Miles, C-14J
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